

Claims

1. A process for making a custard caramel sauce, the process comprising:

5 providing a liquid fat;
mixing together enzyme modified egg yolk, sugar, and water;
combining the mixed enzyme modified egg yolk, sugar, water,
and liquid fat to form an emulsion;
homogenizing the emulsion;
10 heating the emulsion to form a gel; and
liquefying the gel to form the custard caramel sauce.

2. A process as in claim 1, in which the homogenizing is performed prior to the heating.

15 3. A process as in claim 1, in which the heating is performed prior to the homogenizing.

4. A process as in claim 1, in which the liquefying includes passing the gel
20 through a shear pump.

5. A process as in claim 1, in which the liquefying includes cooling the gel.

6. A process as in claim 1, in which the heating includes a first heating
25 step for heating the emulsion to a first temperature and a second heating step

for heating the emulsion to a second temperature that is higher than the first temperature.

7. The process as in claim 1, in which providing a liquid fat includes
5 melting a butter blend selected from the group consisting of butter, margarine, and combinations thereof.

8. The process as in claim 7, in which the melting butter-blend melts
butter blend consisting essentially of butter.

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9. The process as in claim 1, in which the combining to form an emulsion includes subjecting the liquid fat enzyme modified egg yolk, sugar, and water to shear sufficiently high to form the emulsion.

15 10. The process as in claim 1, in which the homogenizing includes passing the liquid fat, enzyme modified egg yolk, sugar, and water through a shear pump.

11. The process as in claim 1, in which the enzyme modified egg yolk, 20 sugar, and water is mixed in a first vessel, and in which the liquid fat is added to the first vessel.

12. The process as in claim 11, in which the liquid fat is melted in a second vessel.

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13. The process as in claim 1, in which the heating includes pasteurizing the homogenized emulsion.
14. The process as in claim 1, further comprising adding at least one flavor 5 to the enzyme modified egg yolk, sugar, water, or liquid fat.
15. The process as in claim 1, further comprising adding caramel flavor to the enzyme modified egg yolk, sugar, water, or liquid fat.
- 10 16. The process as in claim 1, further comprising adding vanilla flavor to the enzyme modified egg yolk, sugar, water, or liquid fat.
17. The process as in claim 1, in which the enzyme modified yolk comprises between about 5 percent and about 10 percent of the total 15 ingredient weight.
18. The process as in claim 1, in which the liquid fat comprises between about 40 percent and 60 percent of the total ingredient weight.
- 20 19. The process as in claim 1, in which the liquid fat comprises between about 45 percent and 54 percent of the total ingredient weight.
20. The process as in claim 1, in which the sugar comprises between about 30 percent and about 50 percent of the total ingredient weight.

21. The process as in claim 1, in which the sugar comprises between about 32 percent and about 40 percent of the total ingredient weight.

22. A process for making a custard caramel sauce, the process
5 comprising:

melting a butter blend selected from the group consisting of butter, margarine, and combinations thereof;

mixing together enzyme modified egg yolk, sugar, and water;

combining the mixed enzyme modified egg yolk, sugar, water,

10 and melted butter blend to form an emulsion;

heating the emulsion to form a gel;

homogenizing the emulsion; and

cooling the gel to liquefy the gel to form the custard caramel

sauce.

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23. The process as in claim 22, in which the heating includes heating the homogenized emulsion to a temperature greater than about 170 degrees F.

24. The process as in claim 22, in which the heating includes heating the
20 homogenized emulsion to a temperature between about 165 degrees F. and
185 degrees F. for more than 15 seconds.

25. The process as in claim 22, in which the heating includes heating the
homogenized emulsion to a temperature of about 175 degrees F. for at least
25 about half a minute.

26. The process as in claim 22, in which the cooling includes passing the gel through a swept film heat exchanger.

5 27. The process as in claim 22, in which the homogenizing includes passing the gel through a shear pump.

28. The process as in claim 22, further comprising packaging the cooled liquefied sauce.

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29. The process as in claim 28, further comprising transferring the cooled sauce to a depositor prior to the packaging.

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30. A process for making a custard caramel sauce, the process comprising:

melting a butter blend selected from the group consisting of butter, margarine, and combinations thereof;

mixing together enzyme modified egg yolk, sugar, and water;

combining the mixed enzyme modified egg yolk, sugar, water,

20 and melted butter blend to form an emulsion;

homogenizing the emulsion;

heating the homogenized emulsion to form a gel; and

subjecting the gel to a shear sufficiently high to liquefy the gel to the custard caramel sauce.

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31. The process as in claim 30, in which the heating includes heating the homogenized emulsion to a temperature greater than about 170 degrees F.

32. The process as in claim 30, in which the heating includes heating the homogenized emulsion to a temperature between about 165 degrees F. and 185 degrees F. for more than 15 seconds.

33. The process as in claim 30, in which the heating includes heating the homogenized emulsion to a temperature of about 175 degrees F. for at least about half a minute.

34. The process as in claim 30, in which the subjecting the gel to shear includes passing the gel through a shear pump.

15 35. The process as in claim 30, further comprising packaging the liquefied sauce.

36. The process as in claim 35, further comprising transferring the sauce to a depositor prior to the packaging.

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37. A custard caramel sauce comprising:

enzyme modified egg yolk;

sugar;

liquid fat; and

25 water,

in which the liquid fat and water form an oil-in-water emulsion, and in which the sauce is pasteurized.

38. A custard caramel sauce as in claim 37, in which the sauce has a pH of 5 less than about 4.6.

39. A custard caramel sauce as in claim 37, in which the sauce has a water activity of less than about 0.85.

10 40. A custard caramel sauce as in claim 37, in which the sauce has a pH of less than about 4.6, and in which the sauce has a water activity of less than about 0.85.

41. A custard caramel sauce as in claim 37, in which the sauce is shelf 15 stable.

42. A custard caramel sauce as in claim 37, in which the enzyme modified egg yolk comprises between about 5 and 9 weight percent of the sauce.

20 43. A custard caramel sauce as in claim 37, in which the enzyme modified egg yolk comprises between about 6 and 8 weight percent of the sauce.

44. A custard caramel sauce as in claim 37, in which the liquid fat is a butter blend selected from the group consisting of butter, margarine, and 25 combinations thereof.

45. A custard caramel sauce as in claim 37, in which the liquid fat consists essentially of butter.

5 46. A custard caramel sauce as in claim 44, in which the butter blend comprises between about 38 and 58 weight percent of the sauce.

47. A custard caramel sauce as in claim 44, in which the butter blend comprises between about 43 and 52 weight percent of the sauce.

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48. A custard caramel sauce as in claim 37, in which the sugar comprises between about 29 and 43 weight percent of the sauce.

49. A custard caramel sauce as in claim 37, in which the sugar comprises 15 between about 33 and 39 weight percent of the sauce.

50. A custard caramel sauce as in claim 37, in which the sauce has a temperature of less than 40 degrees F.

20 51. A custard caramel sauce comprising a pasteurized oil and water emulsion, in which the oil includes a fat and in which the water includes a sugar dissolved in the water, and in which enzyme-modified egg yolk is present as an emulsifier.

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52. A custard caramel sauce as in claim 51, in which the fat includes butter.
53. A custard caramel sauce as in claim 51, in which the fat comprises 5 between 38 and 58 weight percent of the sauce.
54. A custard caramel sauce as in claim 51, in which the sugar comprises between 29 and 43 weight percent of the sauce.
- 10 55. A custard caramel sauce as in claim 51, in which the enzyme modified egg yolk comprises between 5 and 9 weight percent of the sauce.
56. A custard caramel sauce as in claim 51, in which the enzyme modified egg yolk comprises between 6 and 8 weight percent of the sauce.
- 15 57. A custard caramel sauce as in claim 51, in which the sauce has a pH of less than about 4.6.
58. A custard caramel sauce as in claim 51, in which the sauce has a 20 water activity of less than about 0.85.
59. A custard caramel sauce as in claim 51, in which the sauce has a pH of less than about 4.6, and in which the sauce has a water activity of less than about 0.85.